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December 18, 2006
Reply to the Office Action dated June 20, 2006 and the Advisory Action dated November 7, 2006
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This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (previously presented): A compound for a rare-earth bonded magnet, the compound comprising a rare-earth alloy powder and a binder,

wherein the rare-earth alloy powder includes at least about 2 mass % of Ticontaining nanocomposite magnet powder particles, and

the Ti-containing nanocomposite magnet powder particles have a composition represented by the general formula:

$$(Fe_{1-m}T_m)_{100-x-y-z}Q_xR_yM_z$$

where T is at least one element selected from the group consisting of Co and Ni; Q is at least one element selected from the group consisting of B and C and always includes B; R is at least one rare-earth element substantially excluding La and Ce; M is at least one metal element selected from the group consisting of Ti, Zr and Hf and always includes Ti; and the mole fractions x, y, z and m satisfy the inequalities of: 10 at%<x \le 20 at%; 6 at% \le y<10 at%; 0.1 at% \le z \le 12 at%; and 0 \le m \le 0.5, respectively,

the Ti-containing nanocomposite magnet powder particles include at least two ferromagnetic crystalline phases, in which hard magnetic phases have an average crystal grain size of about 10 nm to about 200 nm, soft magnetic phases have an average crystal grain size of about 1 nm to about 100 nm, and the average crystal grain size of the soft magnetic phases is smaller than the average crystal grain size of the hard magnetic phases,

the Ti-containing nanocomposite magnetic powder particles include an $R_2Fe_{14}B$ compound phase at 60 volume % or more, and

the soft magnetic phase of the Ti-containing nanocomposite magnetic powder particles includes an iron-based boride phase.

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Claim 2 (original): The compound of claim 1, wherein the soft magnetic phases are present on a grain boundary between the hard magnetic phases.

Claim 3 (original): The compound of claim 1, wherein the Ti-containing nanocomposite magnet powder particles have aspect ratios of about 0.3 to about 1.0.

Claim 4 (original): The compound of claim 1, wherein the rare-earth alloy powder includes at least about 10 mass % of the Ti-containing nanocomposite magnet powder particles with particle sizes of about 53 µm or less.

Claim 5 (original): The compound of claim 1, wherein the rare-earth alloy powder includes at least about 8 mass % of the Ti-containing nanocomposite magnet powder particles with particle sizes of about 38 µm or less.

Claim 6 (original): The compound of claim 1, wherein the rare-earth alloy powder includes at least about 70 mass % of the Ti-containing nanocomposite magnet powder particles.

Claim 7 (original): The compound of claim 1, wherein the rare-earth alloy powder consists essentially of the Ti-containing nanocomposite magnet powder particles.

Claim 8 (original): The compound of claim 1, wherein the rare-earth alloy powder has an oxygen content of less than about 0.24 mass % when left in the air for an hour at a heating temperature of about 300 °C.

Claim 9 (original): The compound of claim 1, wherein when left in the air at about 400 °C for approximately 10 minutes, the compound increases its mass by less than

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about 0.26 mass % due to oxidation.

Claim 10 (original): The compound of claim 1, wherein the binder includes a thermoplastic resin.

Claim 11 (original): The compound of claim 10, wherein the thermoplastic resin has a softening point of about 180 °C or more.

Claim 12 (original): The compound of claim 1, wherein the compound includes the rare-earth alloy powder at about 60 mass % to about 99 mass % with respect to the sum of the rare-earth alloy powder and the binder.

Claim 13 (original): The compound of claim 1, wherein the rare-earth alloy powder is made up of powder particles obtained by pulverizing a rapidly solidified alloy with a thickness of about 60 μ m to about 300 μ m.

Claim 14 (original): The compound of claim 1, wherein the rare-earth alloy powder is made up of powder particles obtained by pulverizing a rapidly solidified alloy that has been formed by a strip casting process.

Claim 15 (previously presented): The compound of claim 1, wherein the rareearth alloy powder is made up of powder particles obtained from a rapidly solidified alloy.

Claim 16 (original): The compound of claim 1, further comprising a coupling agent.

Claim 17 (original): A bonded magnet made of the compound of claim 1.

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Claim 18 (original): The bonded magnet of claim 17, wherein the magnet is made by an injection molding process.

Claim 19 (original): The bonded magnet of claim 18, wherein the rare-earth alloy powder is loaded to at least about 60 vol%.

Claim 20 (original): An electronic appliance comprising the bonded magnet of claim 17.